

KUS, S.

KUS, S. Prestressing wire of great strength for prestressed construction.
p. 18. BUDOWNICTWO PRZEMYSŁOWE. Warszawa, Poland. Vo. 4, No. 11, Nov. 1955

SOURCE: East European Accessions List (EEAL) LC Vol. 5, No. 6, June 1956

KUS, Stanislaw, inzhener; ZELINSKI, Zenon, inzhener

Prestressed reinforced concrete in industrial building construction in
Poland. Bet. i shel.-bet. no.4:149-150 J1 '55. (MIRA 8:9)

1. Byuro issledovaniy i tipovykh proyektov Ministerstva promyshlennosti
Pol'skoy Narodnoy Respubliki. (Poland—Reinforced concrete)

KUS, S.; JAROSZ, JR., T.; ZIELINSKI, Z.

"Testing the Cable-Concrete Girders of the Roofs of the Grandstands of the Artificial Skating Rink in Warsaw", p. 19, (INZYNIERIA I BUDOWNICTWO, Vol. 12, No. 1, Jan. 1955, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5, May 1955, Uncl.

KUS, S.

Prestressed cylindrical silos.

P. 132 (Inżynieria i Budownictwo. Vol. 14, no. 3, Mar. 1957, Warszawa, Poland)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

KUS, S.

Problem of prestressing reservoirs; some results of technical experiments.

P. 345 (Inzynieria I Budownictwo. Vol. 14, no. 10, Oct. 1957, Warszawa, Poland)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

KUS, S.; ZALESKI, W.

Construction of a supermarket in Warsaw. p. 372.

WZRYHLRA I BUDOWNICTWO. Warszawa, Poland. Vol. 16, no. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960.
Uncl.

BABINSKI, Cz., prof. dr; KUS, St., dr

"The complex manufacturer" by A. Hugon, L. Traverse. Vols. 1, 2.
Reviewed by Cz. Babinski, St. Kus. Inz 1 bud 19 no.6:240, 3 of
cover Je '62.

KUS, Stanislaw, dr inz.

Strands 7 (I) 2,5 as a new type of reinforcing prestressed
concrete. Inz 1 bud 19 no.11:440-444 N '62.

KUS, Stanislaw (Warszawa); ZALEWSKI, Wacław (Warszawa); ZIELIŃSKI, Zenon
(Warszawa)

The 4th Congress on Prestressed Concrete (FIP) in Rome. Przegl budowl
i bud mieszk 34 no.11:658-661 N '62.

KUS, Stanislaw, dr inz.; JOZWIAK, B. [translator]

Prestressed concrete economy in the United States. Przegl
budowl i bud mieszk 35 no.2:108-110 F '63.

KUS, Stanislaw (Warszawa); ZIELINSKI, Jerzy (Warszawa); SROKOWSKA,
Hanna (Warszawa)

Studies on splices as tension reinforcement pretensioned
prestressed concrete. Przegl budowl i bud mieszk 35 no.2:
86-93 F '63.

KUS, Stanislaw, dr inz.

"Liquid containers; calculation and design" by Cz. Klotz, A.Mitzel,
J.Suwalski. Reviewed by Stanislaw Kus. Inz 1 bud 20 no.2:82
F '63.

KUS, Stanislaw, dr inz.

Sport pavilions of the Academy of Physical Education in Warsaw.
Inz i bud 20 no.7:217-222 J1 '63.

1. Biuro Studiow i Projektow Typowych Budownictwa Przemyslowego,
Warszawa.

KUS, Stanislaw, dr inz.

Concept analysis of industrial hall constructions. Inz i bud
20 no.8/9:277-281 Apr 1983.

KUS, Stanislaw, dr inz.

Current problems of dimensioning prestressed structures.
Inz 1 bud 21 no.4,113-119 Ap '64.

KUS, Stanislaw, dr inz.

Eugene Freyssinet, the great construction engineer, 1879-1962.
Inz i bud 21 no.6:218-220 Je '64.

KUS, Stanislaw, dr inz.; DOMANSKI, Stanislaw, mgr inz.

From experiences of designing combined steel-enforced
prestressed roofs. Inz i bud 21 no.8:Suppl:Maly por
konstr 5 no.5:25-27 Ag '64.

KUS, V.

Research institutes for ceramics in Soviet Russia and their tasks;
experiences gained in Soviet Russia. p.133. SKLAR A KERNANIK.
(Ministerstvo lehkeho prumyslu) Praha. Vol. 6, no. 6, June 1956.

SOURCE: East European Accessions List, (EEAL), Library of Congress,
Vol. 5, no. 12, December 1956.

HAVIAR, V.; FEDORČAK, M.; HODŽOVÁ, O.; KUSA, O.; LUKNAROVÁ, O.

Effect of heparin on tissue respiration of the myocardium.
Bratisl. lek. listy 45 no.11:671-675 15 D '65.

1. II. interna klinika Lek. fak. Univerzity Komenského v
Bratislave (veduci prof. MUDr. V. Haviar) a Fakultna trans-
fuzna stanica v Bratislave (veduci doc. MUDr. M. Hrubisko,
CSc.).

KUSAINOV, K.K., aspirant

Results of using green corn for feeding cows. Trudy AZVI 9:64-70
'56. (MIRA 15:4)

1. Iz kafedry kormleniya sel'skokhozyaystvennykh zhiivotnykh
(zav. kafedroy - cheln-korrespondent AN KazSSR, doktor prof.
A.K.Roslyakov) Alma-Atinskogo zooveterinarnogo instituta.
(Cows—Feeding and feeds) (Corn (Maize))

KUSAINOV, K.K.

ROSLYAKOV, A.K., professor; KUSAINOV, K.K., aspirant.

Eight hundred and seventy centners of milk per 100 hectares. Nauka
1 pered.op. v sel'khoz.7 no.2:15-17 F '57. (MIRA 10:3)
(Kazakhstan--Dairying)

KUSAINOV, K.K., aspirant

Preparation and use of corn ensilage in the feeding of cows.
Trudy AZVI 10:88-100 '57. (MIRA 12:8)

1. Iz kafedry kormleniya sel'skokhozyaystvennykh zhiivotnykh
(zav.kafedroy - chlen-korrespondent AN KazSSR, doktor prof.
A.K.Roslyakov) Alma-Atinskogo zoovetinstituta.
(Ensilage)

KUSAINOV, K., Candidate Agric Sci (diss) -- "A study of corn fodders and a determination of norms for feeding them to cows in the suburban zone of Alma-Ata Oblast". Alma-Ata, 1959. 27 pp (Min Agric USSR, Alma-Ata Zoovet Inst), 150 copies (KL, No 24, 1959, 146)

ACC NR: AP6034907

SOURCE CODE: UR/0382/66/000/002/0061/0072

AUTHOR: Vulis, L. A.; Gusika, P. L.; Kusainov, M. K.; Shmelev, Yu. K.;
Yaglenko, V. T.

ORG: none

TITLE: Mercury flow in a trough in a transverse magnetic field

SOURCE: Magnitnaya gidrodinamika, no. 2, 1966, 61-72

TOPIC TAGS: transverse magnetic field, mercury, magnetogasdynamics,
magnetohydrodynamics, mercury flow, free surface flow

ABSTRACT: The article presents some results of systematic observations of a stationary flow of mercury in a horizontal trough, with insulated walls and electrodes in the presence of a transverse magnetic field. This method was found to be valuable in the study of magnetohydrodynamics and magnetogasdynamic phenomena. Qualitative characteristics were obtained on the structure of the hydraulic jump in the magnetic field and the influence of the latter on the intensity and location of the hydraulic jump in the range of values studied for the determin-

Card 1/2

UDC: 538.4

ACC NR: AP6034907

ing parameters. Experimental data for continuous subcritical and theoretical flows obtained in a one-dimensional approximation were compared, and qualitative characteristics obtained. Results of tests confirmed the qualitative deductions from the analysis of equations of reversal effects and the possibility of using an approximate computation based on a one-dimensional diagram. With a certain correlation of parameters, a practically smooth virtually jumpless transition from the supercritical to the subcritical flow was observed. Orig. art. has: 13 figures, 13 formulas. [GC]

SUB CODE: 11, 20, 09/ SUBM DATE: 31Jan66/ ORIG REF: 006/OTH REF: 003/

Card 2/2

MURZALIYEVA, Kh.Ye., zasl. deyatel' nauki, doktor med. nauk, prof.;
KUSAINOVA, G.K., kand. med. nauk; YEGOROV, Yu., red.;
BYCHKOVA, E., red.

[Pregnancy and infectious hepatitis (Botkin's disease)] Beremen-
nost' i infektsionnyi gepatit (bolezni Botkina). Alma-Ata,
"Kazakhstan" 1965. 177 p. (MIRA 18:12)

KUSAINOVA, G.K.

Delivery at the age of 54 after seven years of amenorrhea. Akush. i
gig. 33 no.2:88 Mr-Apr '56. (MIRA 9:7)

1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy professor
Ya.S.Klenitskiy) lechebnogo fakul'teta Kazakhskogo meditsinskogo
instituta.

(PREGNANCY)

KUSAIROVA, G. K. and SYRGABAYEVA, Z.R.

"Toxoplasmosis in Pregnant Women"

Voprosy toksoplazmoza, report theses of a conference on toxoplasmosis,
Moscow, 3-5 April 1961, publ. by Inst Epidemiology and Microbiology
in. N. P. Gamaleya, Acad. Med. Sci USSR, Moscow, 1961, 60pp.

KUSAINOVA, G.K.

Precipitate and premature labor in infectious hepatitis. Vop.
okh. mat. i det. 6 no.3:74-78 1tr '61. (MIRA 14:10)

1. Iz Kazakhskogo nauchno-issledovatel'skogo instituta okhrany
materinstva i detstva (direktor A.B.Bisenova, nauchnyy rukovoditel' -
doktor meditsinskikh nauk Kh.Ye.Murzaliyeva).
(HEPATITIS, INFECTIOUS) (LABOR, COMPLICATED)

KUSAINOVA, G.K.; SYRGABAYEVA, Z.R.

Toxoplasmosis in pregnant women. Akush. i gin. 39 no.3:66-68
My-Je'63 (MIRA 17:2)

1. Iz Kazakhskogo nauchno-issledovatel'skogo instituta okhrany
materinstva i detstva i Kazakhskogo nauchno-issledovatel'skogo
instituta epidemiologii, mikrobiologii i gigiyeny.

KUSAK, A.; HURT, V.

Modernization of machine tools. p. 218.

STROJIRENSKA VYROBA. (Ministerstvo tezkého strojirenstvi, Ministerstvo presneho strojirenstvi a Ministerstvo automobiloveho prumyslu a zemedelskych stroju) Praha, Czechoslovakia. Vol. 7, no. 5, May 1959.

Monthly list of East European Accessions (EEAI), IC, Vol. 8, no. 10, Oct. 1959. Uncl.

ACC NR: AP6032832 (A) SOURCE CODE: CZ/0078/66/000/007/0022/0022

AUTHOR: Vomlel, Otokar (Dobroustov); Kusak, Frantisek (Zbysov); Stefan, Ladislav (Engineer; Jihlava)

ORG: none

TITLE: Lubrication // equipment for flyball governors. CZ Pat. no. PV 5356-65

SOURCE: Vynalezky, no. 7, 1966, 22

TOPIC TAGS: internal combustion engine component, lubrication equipment, injector pump

ABSTRACT: A device is introduced for lubricating mechanical flyball governors which control injector pumps in combustion engines. Flns are arranged inside the governor's box to drain oil spattered into the pipe by the rotor. One end is placed in the governor's box and the other in the axis of the control pin which is equipped with channels connected to the channels in the supporting pin, the grooves shaped in the periphery of the supporting pin, and to the channels in the weight support.

SUB CODE: 21/ SUBM DATE: 31Aug65/

Card 1/1

STRMISKA, Jaroslav, MUDr.; KUSAK, Ivan, MUDr.

Problem of first aid and prevention of injuries in agricultural workers. Cesk. zdravot. 4 no.8:473-476 Aug 56.

1. Vyzkumny ustav traumatologicky v Brne.

(ACCIDS,

farm accid., first aid & prev. (Cz))

(AGRICULTURE,

farm accid., first aid & prev. (Cz))

(FIRST AID, in various diseases,

farm accid. (Cz))

CHYTILOVA, Marie; HONSA, Karel; KUSAK, Ivan

Controlled inhibition of blood supply to tubular flap in transplantation. Acta chir. orthop. traum. cech. 25 no.4:276-278 July 58.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. Dr. Vladimir Novak.
Za technicke spoluprace MUC, Vladimira Novaka a MUC Viktora Hrcire.
M. Ch., Brno, Bayerova 2.

(TRANSPLANTATION, experimental,
controlled blood supply to tubular flap (Cz))

STRMISKA, Jaroslav; KUSAK, Ivan

Effect of antibiotics on the coalescence of a skin graft. Rozhl.
chir. 38 no.7:459-463 July 59

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. dr. Vladimir
Novak.

(ANTIBIOTICS, pharmacol.)

(SKIN TRANSPLANTATION, exper.)

KULHANEX, V.; CHYTILOVA, M.; KRACMER, M.; KUSAK, I.

Immune responses of the organism to fresh, rozen and lyophilized
homografts. Rozhl.chir. 39 no.6:388-392 Je '60.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. MUDr.
Vladimir Novak.

(SKIN TRANSPLANTATION exper.)

STRMISKA, J.; KUSAK, I.; BECHINIE, E.

Effect of the transarticular intramedullary fixation on the extremity.
Experimental study. Acta chir.orthop.traum.czech. 28 no.5:422-428
0 '61.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. MUDr. Vladimir
Novak.

(JOINTS physiol) (FRACTURES surg)

MACIK, J.; FEIT, J.; KUSAK, I.; KOCOUREK, M.

Prevention of intrapulmonary complication after compression thoracic injuries. Rozhl. chir. 43 no.7:465-468 J1 '64.

1. Vyzkumny ustav traumatologicky v Brne (reditel prof. dr. V. Novak, DrSc) a I patologickoanatomicky ustav lekarske fakulty University J.E. Purkyne v Brne (prednosta prof. dr. J. Svejda, DrSc.).

L 45339-66 FSS-2/T WW/JW/JND/RB

ACC NR: AP6022857 SOURCE CODE: CZ/0086/66/000/008/0303/0305

AUTHOR: Ruzicka, Bedrich (Engineer; Candidate of sciences); Kusak, Jan
(Engineer)

38
32
B

ORG: none

TITLE: Recovery system in sounding rockets

SOURCE: Letectvi-kosmonautika, no. 8, 1966, 303-305

TOPIC TAGS: sounding rocket, geophysic research, deceleration parachute,
recovery device

ABSTRACT: The inclusion of recovery devices in the equipment systems of sounding rockets is discussed. The design costs and weight of these devices are assessed since an increase in weight affects the rocket ceiling. However, advantages such as extended trajectory of the rocket in the upper layers of the atmosphere, increased safety for the population in the areas of rocket recovery and impact and instruments, photos, records, and, eventually, of samples of the

Card 1/3

L 45339-06

ACC NR: AP6022857

3
atmosphere collected by rockets are considered to be of prevalent interest. The possibility of reusing the instrument module of a rocket with its costly instruments, as well as the rocket itself is stressed as a significant economy factor. The following recovery devices are described as being used in Soviet sounding rockets:
(1) Recovery parachute systems in MR-1 sounding rockets, which consist of the instrument-module parachute, and a rocket parachute. The former opens at an altitude of approximately 70 km, before the rocket reaches the apex of its trajectory, thus stabilizing the instrument module in the final phase of the ascent.
(2) Deceleration surfaces in "A"-series geophysical research rockets. The surfaces are hydraulically controlled by a servomechanism. A picture of a Soviet geophysical rocket with deceleration surfaces and two photos depicting the parachute systems in an MR-1 sounding rocket are presented by the authors. A diagram showing the drift values for various trajectories of rockets descending from different altitudes is given. The article also mentions several Western sounding rockets and gives an evaluation of their recovery capabilities and equipment. Listed are the ASP rockets, the Aerobee rockets in which the aerodynamic destabilization is used for deceleration, the French "Veronique" rocket in which an

Card 2/3

L 45339-66

ACC NR: AP6022857

aerodynamically unstable design is combined with a deceleration parachute, the Reingold Tilling folded-wings rocket, the Arcas and Loki rockets, and the new West German "Dornier" sounding rocket equipped with a homing-recovery system which enables the rocket to return to the launching site after completing its mission. The article concludes that Czechoslovakia is rather limited in the use of sounding rockets of both the parachute-recovery type as well as the high-acceleration type. The alternatives are seen to lie in liquid-propellant sounding rockets equipped with a deceleration and homing system of the "Dornier" type, or in solid-propellant "Consumable" rockets. A drawing of the "Dornier" rocket, and a diagram showing the rocket's guided-descent trajectory are given. Another figure shows the economic advantages of liquid-propellant rockets equipped with homing recovery systems over the similarly equipped solid-propellant rockets. Orig. art. has: 5 figures, and 4 diagrams. [KP]

SUB CODE: 22/ SUBM DATE: none/

Card

3/3 LC

L 3644-66 FSS-2/EWP(m)/ETC(m)/EWA(1) WW

ACCESSION NR: AP5022189

CZ/0086/65/000/017/0566/0567

AUTHOR: Kusak, Jan (Engineer)
44, 51

45
B

TITLE: Exterior ballistics of a sounding rocket

SOURCE: Letectvi - kosmonautika, no. 17, 1965, 566-567

TOPIC TAGS: ballistic trajectory, sounding rocket, spacecraft altitude
determination, exterior ballistics^{44, 51} 12

ABSTRACT: After a brief discussion of the purpose of sounding rockets, the paper lists all the parameters which influence the altitude attained by such rockets. The parameters are used to formulate a general function for the altitude of a rocket. The difficulties of solving such a function are pointed out. Two basic approaches are given to the problem of designing a sounding rocket for a specific payload and a specific altitude. The times required for solving restricted forms of the altitude function manually and using a computer are tabulated. The altitude function is discussed under the condition that the rocket altitude will not exceed 100 km since only small and medium size sounding rockets will be of interest in Czechoslovakia. The velocity distribution of such rockets along their trajectories is discussed and shown by a curve. Under some restricting conditions, appropriate for low-altitude rockets of small and medium size, a

Card 1/2

L 3644-66

ACCESSION NR: AP5021189

0
simplified function for rocket altitude is formulated and used to compute a three-dimensional nomogram. Some applications of the altitude nomogram are briefly discussed. Orig. art. has: 4 figures, 2 tables, and 4 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: SV

NO REF SOV: 000

OTHER: 000

beh
Card 2/2

KUSAK, Miroslav; WEINFURT, Miroslav

Operational use of polyethylenimine resins in papermaking.
Papir a celuloza 19 no.5:129-133 My '64.

1. Research Institute of Paper and Cellulose, Prague
Worksite.

KUSAK, V.

Therapy of otitis media suppurativa chronica simplex with mixed
antibiotics and sulfonamides. Cesk. otolar. 1 no. 2:57-62 1952.
(CIWL 24:1)

1. Of the Otolaryngological Clinic (Head--Prof. A. Precechtel,
M.D.) of Charles University.

VOLDRICH, L.; MUSAK, V.; TICHY, S.

Effect of *Torula utilis* and *Candida arborea* on the respiratory tract in workers employed in the production of yeast. *Cesk. otolaryng.* 14 no.6:368-371 D '65.

1. ORL laborator Ceskoslovenske akademie ved v Praze (reditel akademik A. Precechtel) a Otolaryngologicka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. K. Sedlacek).

KUSEAK, V.

Distribution and level of tetracycline in the palatine tonsil
in chronic inflammation. Cesk. otolaryng. 14 no.6:335-340
D 165.

1. ORL laborator Ceskoslovenske akademie ved v Praze (reditel
akademik A. Precechtel).

KUSAK, Vlastimil, MUDr.; JIROVA, Miloslava, MUDr.

Considerations on medical services to workers of small plants
by a city regional physician. Cesk. zdravot. 4 no.7:409-410
July 56.

1. Ministerstvo statni kontroly.

(INDUSTRIAL HYGIENE,

med. serv. in small plants by city regional physicians (Cz))

KUSAK, V.; VOLDRICH, L.

Thrush anginas. Cesk.otolar.9 no.6:348-352 D '60.

1. ORL klinika fakulty vseobecneho lekarstvi KU v Praze,
prednosta akademik A. Precechtel, ORL laborator CSAV, vedouci
akademik A. Precechtel.

(TONSILLITIS etiol)

(MONILIASIS compl)

KUSAK, V.

Role of fungi of the genus Candida in the pathogenesis and clinical aspects of tonsillitis. Cesk. otolaryng. 12 no.4: 208-213 Ag '63.

1. Otolaryngologicka laborator CSAV v Praze, vedouci akad.
A. Pracechtel Klinika nemoci usnich, nosnich a krcnich
fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. dr.
K. Sedlacek.

(TONSILLITIS) (MONILIASIS, ORAL)

KUSAK, V.

Angina in large communities as a medical and social problem.
Cas.lek.cesk. 103 no.6:160-165 7 Mr'64.

1. Otolaryngologicka laborator CSAV; vedouci: akademik
A.Precechtel.

*

TICHY, J.; DOŠAL, J.; TOLBACH, J.

inhalation in the respiratory system of the human in a noisy environment.
Czech. otolaryng. 13 no.4:111-113 1971.

. Effect of *Aspergillus niger* on the respiratory system in the manufacture of citric acid. Ibid.:220-221

1. Otolaryngologické laborator Československé akademie věd v Praze
(vedoucí akademik A. Precedtěl) a Otolaryngologická klinika fakul-
ty všeobecného lékařství Karlovy University v Praze (prednáší prof.
dr. K. Sedláček).

CHERNYSHEV, M.A., gornyy inzh.; KUSAKIN, A.A., mekhanik

Improving individual components of the P-1 drill rig. Gor.
zhur. no.5:72-73 My '62. (MIRA 16:1)

1. Rudnik Temir-Tau, Gornaya Shoriya.
(Boring machinery)

KUSAKIN, I.

The trend is to improve economic indices! Sov. profsoiuzy 18
no.5:24-26 Mr '62. (MIRA 15:3)

1. Predsedatel' komiteta profso,usa ordena Trudovogo Krasnogo
Znameni Novomoskovskogo khimicheskogo kombinata.
(Novo-Moskovsk--Chemical industries)

KUSAKIN, I.; GRADSKIY, Ya., inzh.

More about the hinged pipes designed by engineer I.I. Kuznetsov.
Avt. der. 28 no.2:10 F: 65. (MIRA 18:6)

1. Nachal'nik derozhno-ekspluatatsionnogo uchastka No.137
Upravleniya Azovo-Chernomorskikh avtomobil'nykh dorog (for
Kusakin).

KUSAKIN, I.A. [Kusakin, I.O.]

Convergence of some methods for the approximate solution of
operator equations. Dop. AN URSR no.7:830-834 '65.

(MIRA 18:8)

1. Voronezhskiy inzhenerno-stroitel'nyy institut.

KUTSEV, V.P.[deceased]; BROD, I.O., prof., doktor geol.-min.nauk, otv.red.;
Prinimali uchastiye: KRYMOV, V.P., mladshiy nauchnyy sotrudnik;
SAMSONOV, L.G., mladshiy nauchnyy sotrudnik; KUSAKIN, M.N.,
laborant; RUGALEVA, A.M., laborant; SIBILEVA, V.I., laborant;
KOLONTAROV, A.P., red.izd-va; GUS'KOVA, O.M., tekhn.red.

[Materials on the geology, and oil and gas potentials of eastern
Ciscaucasia] Materialy po geologii i nefte-gazonosnosti Vostochno-
nogo Predkavkaz'ia. Moskva, 1960. 178 p.

(MIRA 13:12)

1. Akademiya nauk SSSR. Kompleksnaya neftegazovaya geologicheskaya ekspeditsiya.
2. Nachal'nik Kompleksnoy Severo-Kavkazskoy neftyanoy ekspeditsii AN SSSR, 1952-1955 (for Brod).
3. Dagestanskiy filial AN SSSR (for Krymov, Samsonov).

(Caucasus, Northern--Petroleum geology)

(Caucasus, Northern--Gas, Natural--Geology)

12

Semcoking of the coal of the Artemovsk deposit - Far East. G. N. Bezradetskii and N. D. Kusakov. *Khim. Tverdogo Topliva* 9, 17-28 (1965). The ~~semcoking~~ ^{semcoking} of the Fischer system and the stationary vertical retort (both 15 kg. capacity) were used. The semcoking was carried out at 500° in the first retort and at 550° in the second, for 3.6 and 11.15 hrs., resp. The products were from the rotating and the stationary retort, resp. (a) semcokes: 40.02-60.38 and 40.61-58.27% ash 17.25-27.41 and 15.94-20.41, S 0.13-0.64 and 0.14-0.50, volatile substances 11.98-12.18 and 11.10-8.80%, calorific value 8050-8682 and 7688-8082 cal., (b) tar (5.18-10.28 and 3.72-4.39%) contg. bases 0.96-1.10 and 1.25-2.28, acids 0.65-0.74 and 0.23-0.16, phenols 19.40-21.37 and 14.36-14.96%, and calorific value 9320-9559 and 10,372-9633, resp.; (c) gas (8.24-12.21 and 10.09-13.00%) contg. CO, 33.12 and 30.38; C₂H₄, 4.38 and 2.49; O 0.05 and 0.11; CO₂ 12.72 and 7.75; H₂ 13.27 and 30.18, CH₄ 21.20 and 20.09; C₂H₆ 14.18 and 7.95; N₂ 1.08 and 0.45%; and heating value of 5843-5165 and 4831-4243 cal.; (d) gasoline 10.21-0.30 and 0.21-0.31%; contg. C 81.63 and 80.88; H 11.52 and 11.42; N 0.96 and 0.62; S 4.47 and 2.62; O 1.42 and 4.46; and heating value 10,415 and 10,420 cal., resp.; (e) tar water contg. NH₃ 0.10-0.16 and 0.14 and 0.24; org. substances 0.41-0.35 and 0.33-0.55%, resp. Because of high moisture content of the initial coal (about 30%), low yield of tar, considerable ash content, and comparatively low calorific value of the gas, this coal is not suitable for semcoking.

A. A. Palygony

KUSAKIN, N. D.

KUSAKIN, N. D. -- "Separate Mechanisms of Developing a Temperature Field in a Stagnant Layer of Coked Coal." Sub 17 Mar 52, Inst of Mineral Fuels, Acad Sci USSR. (Dissertation for the Degree of Candidate in Technical Sciences).

50: Vechernaya Moskva, January-December 1952

KUDAKIN, N.D.

USSR.

2213. PERFORMANCE OF ISI COKE OVENS. Kuzkin, N.D. (Rep. to Inst. Combust. Min., 14 May 1954; abstr. in Izv. Akad. Nauk SSSR, Otdel. Tekh. Nauk (Bull. Acad. Sci. U.S.S.R., Sect. Tech. Sci.), Apr. 1954, 154). A flock of full scale experimental coke ovens, designed in accordance with the discoveries of N.P. Chizharskii concerning the distribution of the heating gases, have been in continuous operation since 1948.

Kusakin, N. D.

USSR/Scientific Organization

FD-1105

Card 1/2 Pub. 41-17/17

Author : Syskov, K. I., and Kusakin, N. D. (1), Kupriyanov, V. P. (3)

Title : In scientific establishments of the Department of Technical Sciences
 of the Academy of Sciences of the U.S.S.R.

Periodical : Izv. AN SSSR. Otd. tekhn. nauk 4, 154-160, Apr 1954

Abstract : Describes activity of various scientific institutions in four articles:
 (1) "Seminar of the Institute of Mineral Fuels, Commemorating Academician
 N. P. Chizhevskiy" -- a report on a seminar held 14 May 1954 on
 the subject of IGI (Institute of Mineral Fuels) coke ovens developed
 (1948) on the basis of research done by N. P. Chizhevskiy. (2) "Con-
 ference on the Problem of the Mechanics of Cloth" -- a report on con-
 ference held March 1954, at Institute of Mechanics of the Academy of
 Sciences of the USSR, on construction, technology, and durability of
 cloth.

USSR/Scientific Organization

FD-1105 & 1106

Card 2/2 Pub. 41-17/17

Abstract : (3) "Conference on use of Local Building Materials for Agricultural Construction" -- a report on conference held March 1954 by Commission on Construction Problems and the All-Union Scientific and Technical Society of the Silicate Industry on ways of increasing the use of binding materials from local sources as slag, ashes, gypsum, and lime.
(4) "Works of the Institute of Mineral Fuels, Published in 1953" -- a report, including chapter titles, on two publications of the Academy of Sciences of the USSR: "An Investigation of Contemporary Principles for Coal Coking" (Issledovaniye sovremennykh printsipov koksovaniya ugley), Works of the Institute of Mineral Fuels, Vol. 4, Issue 1, 1953, 64 pp. "The Chemistry and Origin of Solid Mineral Fuels" (Khimiya i genezis tverdykh goryuchikh iskopayemykh), Works of the First All-Union conference, 1950, Institute of Mineral Fuels, All-Union Chemical Society imeni D. I. Mendeleyev, 420 pp.

Periodical : Izv. AN SSSR. Otd. tekhn. nauk 4, 154-160, Apr 1954

Institution :

Submitted :

KUSAKIN N.D.

CHIZHEVSKIY, Nikolay Prokop'yevich, akad.; KUSAKIN, N.D., kand. tekhn. nauk.;
BARDIN, I.P., akad., otv. red.; SAMARIN, A.M., red. SYKOV, K.I., doktor
tekhn. nauk, red.; TSYL'EV, L.M., doktor tekhn. nauk, red.; SHAPOVALOV,
I.K., red. izd-va.; PRUSAKOVA, T.A., tekhn. red.

[Selected works] Izbrannyye trudy. Moskva, Izd-vo Akad. nauk SSSR.
Vol. 1. 1958. 439 p. (MIRA 11:11)

1. Chlen-korrespondent AN SSSR (for Samarin)
(Metallurgy)
(Coke)
(Fuel)

CHIZHEVSKIY, Nikolay Prokop'yevich, akademik; KUSAKIN, N.D., kand. tekhn. nauk, sostavitel' toma; BARDIN, I.P., akademik; SAMARIN, A.M., SYSKOV, K.I., doktor tekhn. nauk; TSYLEV, doktor tekhn. nauk; CHERNYSHEV, D.M., red. izd-va; PRUSAKOVA, T.A., tekhn. red.

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akad. nauk SSSR. Vol.2. 1958. 425 p. (MIRA 12:1)

1. Chlen-korrespondent AN SSSR (for Samarin).
(Coke) (Metallurgy)

KUSAKIN, N.D.; SAL'NIKOV, A.P.; BARANOV, V.I.

Thermal conductivity of coal shapes and products of their heat
treatment. Trudy IGI 10:196-200 '59. (MIRA 12:12)
(Briquets (Fuel)--Thermal properties)
(Coke--Thermal properties)

KUSAKIN, N.D.; SIGAREV, A.M.; ZVYAGINA, Ye.V.; Primalni uchastiye:
DOTSENKO, A.M.; KOKOREVA, M.A.; LYUBIMOVA, E.M.; SEMENOVA, L.V.

Investigating the gaseous medium surrounding carbon-graphite blanks
during their baking in a multiple compartment ring kiln. TSvet. met.
37 no.10:51-54 0 '64. (MIRA 18:7)

KUSAKIN, N.D.; VIATKIN, S.Ye.; AVERINA, M.V.

Structural modifications of carbon material in petroleum
pyrolysis cokes. TSvet.met. 38 no.10:59-62 0 '65.
(MIRA 18:12)

KUSAKIN, O.G.

Systematics of certain species of *Idothea* Fabr. (Isopoda, Valvifera)
from the Far Eastern seas of the U.S.S.R. Trydy Zool.inst.18:219-227
'55. (Soviet Far East--Isopoda) (MLRA 9:2)

KUSAKIN, O.G.

New warm water isopods in Far Eastern waters of the U.S.S.R.
Trudy Zool.inst.18:228-234 '55. (MLRA 9:2)
(Soviet Far East--Isopoda)

KUSAKIN, O.O.

Fauna and flora of the intertidal zone of Kunashir Island. Trudy
probl.i tem.sov. no.6:98-115 '56. (MLRA 9:11)

1. Leningradskiy gosudarstvennyy universitet.
(Kunashir island--Marine biology)

KUSAKIN, O.G. Cand Biol Sci -- (diss) "The coastal region
of the southern Kurile Islands and its fauna and flora."

Len, 1958. 20 pp. (Len Order of Lenin Univ im A.A. Zhdanov).

100 copies.

(KL, 8-58, 104)

-14-

KUSAKIN, O.G.

Seasonal changes in the littoral of the Southern Kurile Islands
[with summary in English]. Vest. IGU 13 no.3:116-130 '58.
(Kurile Islands--Seashore biology) (MIRA 11:5)

KUSAKIN, O.G.

Biological characteristics of the Far Eastern chiton *Schizoplax brandtii* (Middendorff). Zool. zhur. 39 no.8:1145-1150 Ag '60.
(MIRA 13:8)

1. Zoological Institute of the U.S.S.R. Academy of Sciences, Leningrad.
(Pacific Ocean—Amphineura)

...KUSAKIN, O.G.

Some characteristics of the distribution of fauna and flora in the
intertidal zone of southern Kurile Islands. Issl.dal'nevost.mor.
SSSR no.7:312-343 '61. (MIRA 14:5)
(Kurile Islands—Seashore biology)

KUSAKIN, O. G.

Janiridae(Isopoda, Asellota) from the seas of the U.S.S.R. Trudy
Zool. inst. 30:17-65 '62. (MIRA 15:10)

(Janiridae)

KUSAKIN, O. G.

Munnidae (Isopoda, Asellota) from the Far Eastern seas of the
U.S.S.R. Trudy Zool. inst. 30:66-109 '62.

(MIRA 15:10)

(Pacific Ocean--Isopoda)

KUSAKIN, O.G.

A new species of littoral crustaceans (Isopoda, Sphaeromidae)
from the Soviet Far Eastern seas. Issl.dal'nevost.mor.SSSR
no.8:238-242 '62. (MIRA 15:12)

1. Zoologicheskii institut AN SSSR.
(Pacific Ocean—Sphaeromidae)

GOLIKOV, A.N.; KUSAKIN, O.G.

Fauna and ecology of prosobranchiate gastropods in the littoral waters of the Kurile Islands. Issl.dal'nevost.mor.SSSR no.8: 248-346 '62. (MIRA 15:12)

1. Zoologicheskii institut AN SSSR.
(Kurile Islands---Prosobranchiata)

KUSAKIN, O.G.

Desmosomatidae (Crustacea, Isopoda) of the Far Eastern seas
of the U.S.S.R. Izv. nauy mor. 3:115-122 '65. (MIRA 18:9)

1. Leningradskiy gosudarstvennyy universitet.

Handwritten: A

Attempts to obtain ferro-titanium. S. S. STRINBERG AND L. N. KUSAKIN. *Trans. Inst. Iron. Mineral. Met. (Moscow) 1929, No. 43, 5-44.* The object of this investigation was to det. the conditions of reduction of Ti by C from ores rich in TiO₂ in the process of preparing ferro-carbo-titanium, and to investigate the possibilities of obtaining the commercial alloy in the conditions existing in the Urals. The lower the Ti content of the charge, the lower is the temp. of complete reduction. With the concn. of Ti in the charge necessary to obtain 5% Ti ferro-titanium alloy, complete reduction of Ti is obtained at 1400°; 10-12% Ti alloy is obtained at about 1600°. Further increase of Ti content (carbide) in the melt raises the melting temp., because the m. p. of Ti carbide is very high (3170°). An alloy contg. 14-18% Ti and 5-7.5% C can be obtained only at temps. above 1600-1750°. In prep. alloys with 19-21% Ti 80% reduction is obtained at 1700°, and 92% at 1940°. Therefore, in the existing plant conditions (Ural) the prepn. of ferro-carbo-titanium alloy with Ti content above 20% is impracticable. An alloy contg. 21% Ti and 0.10% C melts at 1400-1420°. Because of the easier formation of Ti carbide than of metallic Ti in the furnace it is easier to obtain ferro-carbo-titanium than low-C ferro-titanium. The latter can be obtained by reduction with Al. On the basis of these expts. the following recommendations are presented as to the furnaces and the process of obtaining ferro-titanium: (a) Arc furnaces are best suited for obtaining high temps. necessary in the process. (b) A steel melting type of furnace with an arched roof is suggested in order to heat both the metal bath and the slag. (c) Ti should be reduced from Ti ore covering the metal bath in the form of slag by the C of the bath, wherefore the bottom should be made of coke. (d) No addn. of fluxes (lime) is needed, because it raises the reduction temp. of Ti. The charge should consist of ore, coke and scrap iron in corresponding proportions. (e) A Siemens, type furnace with one upper moving electrode and one bottom electrode is best suited for the process. (f) Either ilmenite or titanomagnetite can be used as the ore. Sketches of the furnaces and complete records of all melts are given. R. N. DASHOFF

AS 50-51.4 METALLURGICAL LITERATURE CLASSIFICATION

The production of ferro-alloys. S. S. STRIMBERG AND P. S. KUSARIN, *Ironmaking Metal*, 1930, 1471, 701. —Molybdenite, contg. 87.51% MoS₂, was smelted together with Fe filings, coke and lime in an exptl. earthen furnace. Fe alloys contg. 50% Mo, 5-6% C and >0.10% S were easily obtained. The recovery of Mo from the ore reached 80-90%. In the prepn. of pure Fe-Cr alloy, crude Fe-Cr, contg. 64.3% 65% Cr and 4.5-6.5% C, was mixed with magnetite in one case and with chromite ore in other cases and refined in the same furnace at temps. up to 2050°. In this way Fe-Cr alloys contg. as low as 0.5% C or less can easily be produced. Fe-V alloys were prepd. from Fe-V ore, contg. 48.4% V₂O₅ and 20.38% Fe₂O₃, and (NH₄)₂VO₄ in an arc and a kryptof furnace. Charcoal, steel and Fe-Si alloy were used as reducing agents. First, iron was melted in a magnetite crucible. To this was added V ore, Fe-Si alloys, or other reducing agents, and lime

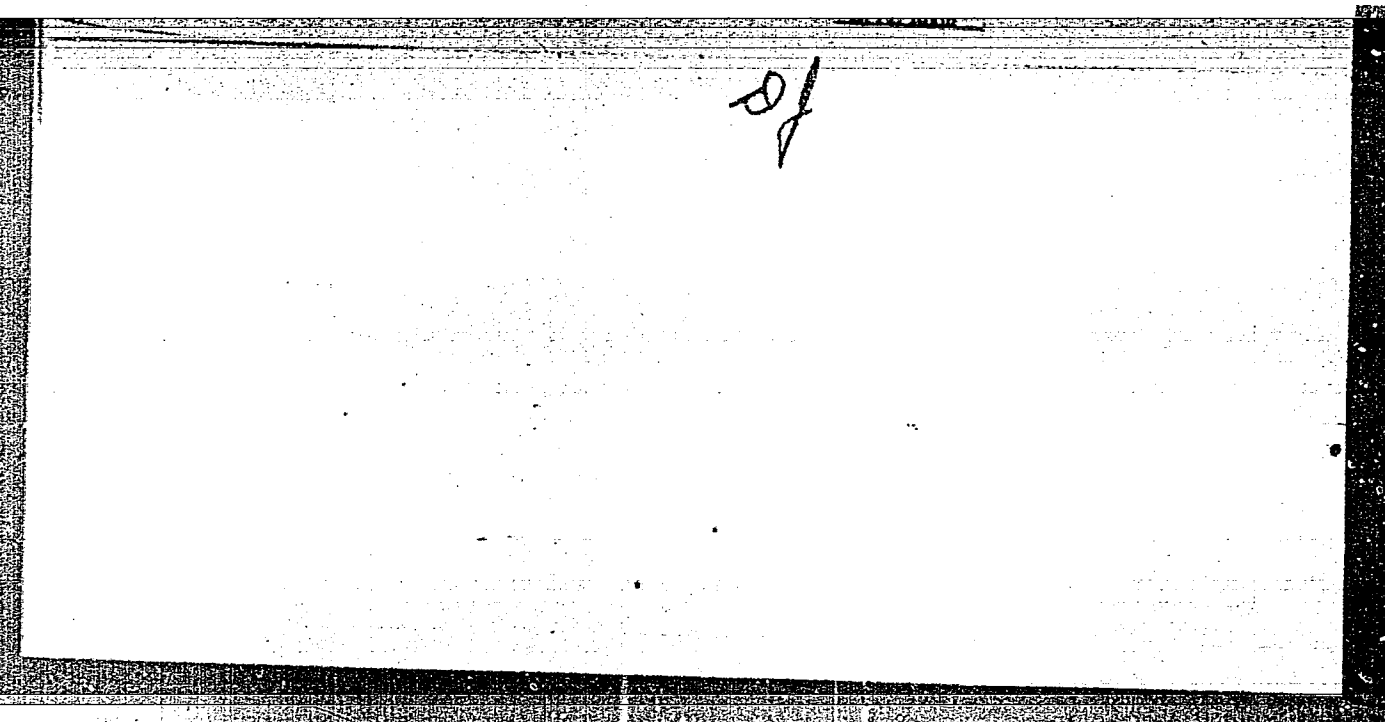
Temp. was kept as low as possible. In this way an iron alloy contg. 31.03-44% V, 1.18-1.23% Si and 0.48-1.80% C was obtained. S. L. MADORSKY

ASD-32A METALLURGICAL LITERATURE CLASSIFICATION

| 1ST AND 2ND OBJECTS | | | | | | | | | | 3RD AND 4TH OBJECTS | | | | | | | | | |
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| PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | |
| M | | | | | | | | | | 2 | | | | | | | | | |
| <p>Obtaining Cupro-Titanium and the Effect of Adding It to Alloys of Non-Ferrous Metals. P. S. Kuznetsov (Ural'skii Gosudarst. Nauch.-Issledovatel. Inst. Zvezdnykh Metal., Sbornik Nauch.-Issledovatel. Rabot, 1935, (1), 95-109; C. Aba., 1937, 21, 3854).—[In Russian.] TiO₂ is best reduced with aluminium on a copper bath at 1600° C. Properties of its alloys are discussed.—S. G.</p> | | | | | | | | | | | | | | | | | | | |
| <p>ASB-51.0 METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | |
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Investigation of the work of the experimental baffles in the
flues of reverberatory furnaces of a copper smelter. P. S.
Kusakio, P. A. Pashnikov, and I. B. Valzel. *Trudy Tsv.
Akad. Nauk S.S.S.R., Ural. Filial* 1933,
No. 3, 72-80. --Air- or water-cooled baffle tubes, installed
in the waste heat boilers of reverberatory furnaces of a Cu
smelter, lowered the collecting dust temp. to 300-50°.
The dust deposited at this temp. was friable and easily
removed. The boiler operating conditions were improved
and up to 47% fuel was saved in the dust distribution
P. M. Elkin.

2

KUSAKIN, P.S.; MEZHENINOV, M.Yu.

Simple pipe-cutting machine. Obm.tekh.opyt. [MLP] no.27:
37-39 '56. (MIRA 11:11)
(Pipe cutting)

BIBINA, I.A.; VETRENKO, Ye.A.; DIYEV, N.P.; YELISEYEV, I.S.; KLUSHIN, D.N.;
KUSAKIN, P.S.

Speeding up the bessemer process of converting copper matte by
oxygen-enriched air. TSvet. met. 29 no.7:10-17 J1 '56.

(MLRA 9:10)

(Copper--Metallurgy) (Bessemer process)

RUSAKIN, P.S.

18
1E2C
The mechanism of mat formation during shaft smelting of oxidized nickel ore. P. Rusakin, P. S. Rusakin, S. E. Laumkin, and L. A. Churpach. *Trudy Akad. Nauk SSSR* 9, 503 (1956). A petrographic and chemical study of the charge materials in a shaft smelting furnace at different levels above the tuyeres. The typical furnace charge is oxide nickel ore 27, ironstone 13, pyrite 12, and 31%. It is found that pyrite is reduced at a level above the tuyere level. The primary oxidation and reduction of the ore take place below the tuyere zone as a result of reactions in the liquid phase between the NiO and CaO formed by the reduction of CaO.

for Red
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SOV/137-58-12-24309

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 54 (USSR)

AUTHORS: Moleva, N. G., Vetrenko, Ye. A., Kusakin, P. S.

TITLE: Relationship of Matte Crushability and Abrasability to Cooling Rate
(Zavisimost' drobimosti i istirayemosti shteynov ot skorosti ikh okhlazhdeniya)

PERIODICAL: Tr. In-ta metallurgii. Ural'skiy fil. AN SSSR, 1957, Nr 1, pp 99-102

ABSTRACT: Accelerated cooling of mattes (M) in the nickel industry permits a significant reduction of precipitation of the Fe-Ni therein. When this practice is followed, the Fe-Ni dendrites are distributed equally within the basic sulfide mass and segregation thereof is not observed. Rapidly cooled M show substantially lower resistance to abrasion, but respond to crushing considerably more poorly than when cooled slowly. Significant segregation of a metallic phase of (Fe-Ni) is observed in slowly cooled specimens, as is a greater microhardness of rapidly cooled M. This testifies to the fact that a hardening of the metallic and sulfide phases is under way.

Card 1/1

Ye. Z.

KUSAKIN, P.S.; SEREBRENNIKOVA, Ye.S.

Microstructure of anodic nickel prepared by reaction smelting
in electric furnaces. Trudy Inst. met. UFAN SSSR no.1:132-135
'57.

(MIRA 11:9)

(Nickel--Electrometallurgy)
(Nickel--Metallography)

Kusakin P.S.

133-12-2/26

AUTHORS: Moleva, N.G., and Kusakin, P.S., Candidates of Technical Sciences.

TITLE: On the Mineralogical Composition of Fluxed Sinters
(O mineralogicheskom sostave oflyusovannykh aglomeratov)

PERIODICAL: Stal', 1957, No.12, pp. 1068-1071 (USSR)

ABSTRACT: A microscopic investigation of sinters of various basicities produced from two types of ore and with various coke content in sinter mixes was carried out. Chemical composition and sintering conditions of samples investigated are given in the table. It was found that the phase composition of sinters depends to a large extent on the silica content. In sinters containing 12 - 16% of silica, calcium oxide reacts with silica with the formation of ferro-calcium and aluminocalcium silicates; calcium ferrites appear mainly around pores with their total content of 10-15%. With silica content of 7%, low melting liquid phase rich in calcium dissolves magnetite, on the cooling of which calcium ferrites of various composition are crystallised. The remains of dissolving magnetite grains serve as crystallisation centres for monocalcium ferrite. Total content of calcium ferrites in samples investigated was about 30 - 45%. The solidified liquid phase consisted of ferrous glass. Calcium ferrites crystallised mainly from the liquid

Card 1/2

On the Mineralogical Composition of Fluxed Sinters. 133-12-2/26

phase. Calcium containing sinter are not strong, all micro-cracks pass through the solidified cementing phase of the sinter and are probably caused by rapid cooling of sinter. Cracks in sinter are not necessarily related to accumulations of calcium ferrites. It is possible that on slow cooling the strength of sinter will increase. Magnetite probably dissolves in monocalcium ferrite and precipitates on cooling in the form of inclusions. There are 5 figures, 1 table and 6 Slavic references.

ASSOCIATION: Institute of Metallurgy UFAN (Institut metallurgii UFAN)
AVAILABLE: Library of Congress

Card 2/2

Distr: 4E2c

18
 Mineralogical composition of sintered slates. N. G.
 Moleva and P. S. Puzoska. Sci. 17. 1035-1037.
 The structure of a sample containing 10% SiO₂, 10% CaO, and
 80% Fe₂O₃ sintered at 1200° in an oxidizing atmosphere was com-
 pared with the structures of slates made of a hematite ore
 or magnetite concentrates with 1.0 or 1.5 CaO. SiO₂ and
 4.5-6.0% coke sintered at 1300-1350° in a reducing
 atmosphere. Base starts first with SiO₂ and hematite.

3
 1

MOLEVA, N.G.; KUSAKIN, P.S.; VETRENKO, Ye.A.; DIYEV, N.P.

Crystallization of alloys of the system $\text{FeS} - \text{Co}_4\text{S}_3$. Zhur. prikl.
khim. 30 no.9:1402-1405 S '57. (MIRA 11:1)

1. Institut khimii i metallurgii Ural'skogo filiala AN SSSR.
(Iron sulfides) (Cobalt sulfides)

SOV/137-59-1-1373

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 182 (USSR)

AUTHORS: Kusakin, P. S., Serebrennikova, Ye. S.

TITLE: The Microstructure of Anodic Nickel Obtained by Means of Reactive Smelting in an Electric Furnace (Mikrostruktura anodnogo Ni, poluchayemogo reaktsionnoy plavkoy v elektropechi)

PERIODICAL: Tr. In-ta metallurgii. Uralskoy fil. AN SSSR, 1957, Vol 1, pp 132-135

ABSTRACT: A comparative investigation of microstructure properties of sound as well as rejected cast Ni anodes. Both anodes exhibit analogous phase-structure characteristics, but the rejected castings contain considerably greater quantities of Ni_3S_2 , a compound which tends to form wide interlayers containing also NiO . Compared with the sound metal, the rejected metal also exhibits greater porosity. In order to evaluate the effect of impurities and conditions of cooling of castings on the phase composition of Ni, the microstructure of sound and rejected anodes was studied under the following conditions: a) After preliminary annealing; b) after rapid cooling of molten Ni in a massive Cu mold immersed in water; c) after slow cooling of

Card 1/2

The Microstructure of Anodic Nickel Obtained by Means of Reactive Smelting (cont.)

SOV/137-59-1-1373

the crucible with the molten Ni in the furnace. To obtain a high-quality metal, the first stage of smelting (oxidation of S of the molten metal and burning off of C) should be carried out in a hot bath, care being taken to avoid overheating. The Ni obtained should contain minimum amounts of S and C, since the presence of significant quantities of Ni_3S_2 , NiO , and C results in the formation of SO_2 and CO , which produces a spongy and blistered surface on the castings. Rapid cooling of metal which had been preliminarily soaked in a furnace for a sufficient length of time improves the quality of a casting.

V. G.

Card 2/2

MIKHAYLOV, V.V.; SHAVRIN, S.V.; CHEMISOV, A.V.; KUSAKIN, P.S.;
SAPOZHNIKOVA, T.V.; OSINOVSKIY, L.L.

Continuous process of separating titanium slags from iron-titanium
concentrates. Trudy Inst. met. UFAN SSSR no.2:47-54 '58.

(MIRA 12:4)

(Titanium ores)

(Ore dressing)

SOV/137-58-10-20467

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 18 (USSR)

AUTHORS: Moleva, N. G., Kusakina, P. S., Rapoport, E. M.

TITLE: Gas-phase Reaction of Oxides and Sulfides (O vzaimodeystvii okislov i sul'fidov cherez gazovuyu fazu)

PERIODICAL: Izv. Sibirsk. otd. AN SSSR, 1958, Nr 2, pp 57-61

ABSTRACT: An investigation is made of Cu, Ni, and Fe oxides and sulfides. The experimental conditions excluded the occurrence of solid-phase reactions. The possibility was established that these compounds could react in the gas phase. The low value of the dissociation equilibrium pressures does not interfere with the course of the reactions. The process is limited by the diffusion of O₂ and S₂ through the film of metal and sulfide formed. The reaction resolves itself to the reduction of oxides to metal by gaseous sulfur and subsequent sulfidization of the latter.

1. Copper oxide--Phase studies 2. Nickel oxide--Phase studies 3. Iron oxide--Phase studies G. F.

Card 1/1

SOV/137-59-3-5527

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 84 (USSR)

AUTHORS: Diyeu, N. P., Kusakin, P. S., Paduchev, V. V., Sobolev, P. A.,
Perestoronin, A. A.

TITLE: Phase Content of Cobalt-nickel Mattes
(Fazovyy sostav kobal'to-nikelevykh shteynov)

PERIODICAL: Tr. In-ta metallurgii. Ural'skiy fil. AN SSSR, 1958, Nr 2, pp
181-186

ABSTRACT: The authors studied the phase content of industrial Co mattes by the following methods: 1) Mineralogical-petrographic investigations; 2) gravitational [sink-float] separation in water, heavy liquids, suspensions, etc.; 3) air-separation; 4) flotation; 5) smelting out; and 6) classification according to grain size. Conclusions: 1) Co does not form an independent phase in mattes but is distributed between the sulfide and metallic solid solutions and the double sulfide $2\text{FeS} \cdot \text{Ni}_3\text{S}_2$, isomorphically taking the place of Fe and Ni in the lattice nodes of the respective phases; 2) the composition of separate phase components in Co mattes fluctuates in the following range:

Card 1/2 Metallic phase 18-40% (by weight), sulfide phase 43-40%, eutectoid

Phase Content of Cobalt-nickel Mattes

SOV/137-59-3-5527

38-20%, and slag intrusions 0-4%; 3) the metallic phase contains (in %): Ni 6.6-44, Fe 47.8-80, Co 0.85-2.6, and S 0.9-4.0. Co and Ni are concentrated mainly in the metallic phase; 4) the sulfide phase contains (in%): Ni 11.8-22.2, Fe 49-61, Co 0.7-0.9, and S 29.0-32.3; 5) the main mass of the metallic phase has a grain size of from 10 to 60 μ , a specific gravity of 7.88 and a melting point of 1370°C; 6) the specific gravity of the sulfide phase is 4.6.

N. P.

Card 2/2

Translation from: Referativnyy zhurnal. Metallurgiya 1959, Nr 2, p 72 (USSR) SOV/137-59-2-2805

AUTHORS: Moleva, N. G., Kusakin, P. S.

TITLE: On the Mineralogical Composition of Fluxed Agglomerates (K mineralogicheskomu sostavu oflyusovannykh aglomeratov)

PERIODICAL: Tr. In-ta metallurgii. Ural'skiy IL AN SSSR. 1958, Nr 2, pp 187-193

ABSTRACT: The authors investigate the mineralogical composition of fluxed Fe and Ni agglomerates (A) of highly concentrated Magnitogorsk magnetite (90 - 95% magnetite), bauxite, and oxidized Ni ores to determine the chemism and mechanism of the reaction of CaO with the minerals of the ores. It was established that CaO reacts first with the silicate phases of A (fayalite), transforming it into ferromonocellite; when present in excess, CaO forms Ca silicates. The phase composition of the fluxed A depends upon the SiO₂ content. In the presence of 12 - 16% SiO₂, CaO forms Fe-Ce and Al-Ca silicates and a very small amount of Ca ferrites. In the presence of 17% SiO₂ magnetite is dissolved in the liquid phase (LP) from which upon cooling Ca ferrites of variable composition are crystallized out in amounts up to

Card 1/2